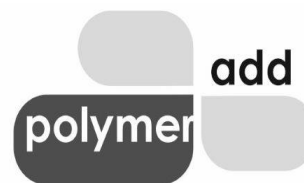


Polymer Add (Thailand) Co.,Ltd.

Office - 106, Chalarempriakiat, Lor 9, Soi 22, Yak 5, Nongbon, Prawet, Bangkok, Thailand 10250

Factory - 188/3, Moo 8, Tambon Bangpu Mai, Amphoe Muang Samut Prakan, Samutprakan, Thailand 10280

Mobile - Thai : 0804531391, English: 0839415475, E-mail – contact@polymeradd.co.th



TECHNICAL DATA SHEET

VCIGUARD CU65

Micronized VCI Blend – BTA-Free, Copper-Safe Corrosion Protection

Variants: **VCIGUARD CU65-A** | **VCIGUARD CU65-DU** | **VCIGUARD CU65-MB**

PRODUCT CODE CLARIFICATION

Product Code	Description
VCIGUARD CU65-A	Additive-Only Powder
VCIGUARD CU65-DU	Direct Use Blend with LDPE
VCIGUARD CU65-MB	Masterbatch with LLDPE

PRODUCT DESCRIPTION

VCIGUARD CU65 is a high-performance, BTA-free micronized VCI additive blend designed for multi-metal protection with emphasis on copper, brass, and mild steel. It combines vapor-phase and contact-phase inhibitors, and is specially tailored for non-ferrous alloys. The blend is optimized for high flowability, moisture resistance, and excellent dispersion in polymer systems.

VCIGUARD CU65-A — MICRONIZED ADDITIVE BLEND (ADDITIVE ONLY)

CHEMICAL NAME	FUNCTION	COMPOSITION	CAS
Benzylammonium Benzoate	Vapor-phase inhibitor Cu, brass, steel protection	20.00%	19855-38-6
2-Mercaptobenzimidazole (MBI)	High-performance Cu/brass corrosion inhibitor	10.00%	583-39-1
Sodium Citrate	Buffering agent Zn/Al corrosion protection	10.00%	68-04-2
Micronized Talc	Anti-blocking improves blend stability and flow	20.00%	14807-96-6
Hydrophobic Fumed Silica	Anti-caking agent; Moisture barrier	1.00%	67762-90-7
Micronized Calcium Carbonate	Flow aid inert filler	39.00%	471-34-1
TOTAL		100.00%	

Polymer Add (Thailand) Co.,Ltd.

Office - 106, Chalarempriakiat, Lor 9, Soi 22, Yak 5, Nongbon, Prawet, Bangkok, Thailand 10250

Factory - 188/3, Moo 8, Tambon Bangpu Mai, Amphoe Muang Samut Prakan, Samutprakan, Thailand 10280

Mobile - Thai : 0804531391, English: 0839415475, E-mail – contact@polymeradd.co.th



VCIGUARD CU65-DU — MICRONIZED ADDITIVE BLEND + RESIN (DIRECT USE BLEND)

Suitable for direct film blending without compounding

CHEMICAL NAME	FUNCTION	COMPOSITION	CAS
Benzylammonium Benzoate	Vapor-phase inhibitor Cu, brass, steel protection	16.00%	19855-38-6
2-Mercaptobenzimidazole (MBI)	High-performance Cu/brass corrosion inhibitor	8.00%	583-39-1
Sodium Citrate	Buffering agent Zn/Al corrosion protection	8.00%	68-04-2
Micronized Talc	Anti-blocking improves blend stability and flow	16.00%	14807-96-6
Hydrophobic Fumed Silica	Anti-caking agent moisture barrier	0.80%	67762-90-7
Micronized Calcium Carbonate	Flow aid; inert filler	31.20%	471-34-1
LDPE Resin	Resin matrix for direct film blending	20.00%	9002-88-4
TOTAL		100.00%	

VCIGUARD CU65-MB — MICRONIZED ADDITIVE BLEND + RESIN (MASTERBATCH GRADE)

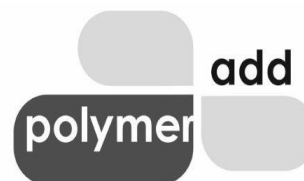
CHEMICAL NAME	FUNCTION	COMPOSITION	CAS
Benzylammonium Benzoate	Vapor-phase inhibitor Cu, brass, steel protection	10.00%	19855-38-6
2-Mercaptobenzimidazole (MBI)	High-performance Cu/brass corrosion inhibitor	5.00%	583-39-1
Sodium Citrate	Buffering agent Zn/Al corrosion protection	5.00%	68-04-2
Micronized Talc	Anti-blocking Improves blend stability and flow	10.00%	14807-96-6
Hydrophobic Fumed Silica (R972)	Anti-caking agent Moisture barrier	0.50%	67762-90-7

Polymer Add (Thailand) Co.,Ltd.

Office - 106, Chalarempriakiat, Lor 9, Soi 22, Yak 5, Nongbon, Prawet, Bangkok, Thailand 10250

Factory - 188/3, Moo 8, Tambon Bangpu Mai, Amphoe Muang Samut Prakan, Samutprakan, Thailand 10280

Mobile - Thai : 0804531391, English: 0839415475, E-mail – contact@polymeradd.co.th



Micronized Calcium Carbonate	Flow aid Inert filler	17.50%	471-34-1
LLDPE Resin	Carrier resin for masterbatch compounding	52.00%	9003-07-0
TOTAL		100.00%	

TYPICAL PROPERTIES

PROPERTY	VALUE / DESCRIPTION
Appearance	Fine off-white to beige powder
Odor	Mild ammoniacal or sulfurous (due to MBI)
Particle Size (D100)	< 20 µm (micronized)
Bulk Density	~0.35–0.55 g/cm ³
Flow Characteristics	Free-flowing with anti-caking treatment
Moisture Content	< 0.5% (as packed)

THERMAL CHARACTERISTICS

COMPONENT	MELTING / DECOMPOSITION TEMPERATURE (°C)
Benzylammonium Benzoate	~195–205 °C
2-Mercaptobenzimidazole (MBI)	>280 °C
Sodium Citrate	>230 °C
Micronized Talc	Stable >900 °C
Hydrophobic Fumed Silica	~1000 °C
Calcium Carbonate	Stable >800 °C

REGULATORY & SAFETY INFORMATION

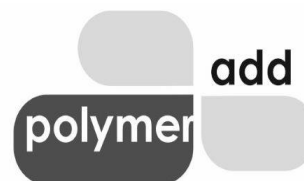
All components comply with applicable regulatory standards for industrial plastic additives. Suitability for copper and brass applications without BTA (benzotriazole) is a distinguishing feature. Refer to SDS for complete safety and handling guidance.

Polymer Add (Thailand) Co.,Ltd.

Office - 106, Chalarempriat, Lor 9, Soi 22, Yak 5, Nongbon, Prawet, Bangkok, Thailand 10250

Factory - 188/3, Moo 8, Tambon Bangpu Mai, Amphoe Muang Samut Prakan, Samutprakan, Thailand 10280

Mobile - Thai : 0804531391, English: 0839415475, E-mail – contact@polymeradd.co.th



APPLICATIONS

- VCI films, bags, or foam for copper/brass components
- Multi-metal packaging and electronics protection
- Masterbatch for PE, PP, or EVA systems
- Paper coating for precision metal packaging

PROCESSING GUIDANCE

- Store in sealed packaging; avoid humidity
- Ensure uniform dispersion with polymer carrier
- Recommended processing temperature: <180 °C

PACKING INSTRUCTIONS

Packing Type	Description
Multi-layer PE Bags	10 Kg / 15 Kg with moisture barrier liner
HDPE Drums	25 Kg – suitable for long-term storage
Fiberboard Boxes	On request – sealed PE inner bags
Custom Packing	Available on request (MOQ & lead time apply)

Document Ref: VCIGUARD_CU65_TDS_v1.0 | Issued: June 2025 | Supersedes all previous versions